PRIVATE EQUITY
PERFORMANCE IMPROVEMENT

GPT-4 In Action:
Utilizing GPT-4 For Private Equity Portfolio Companies in Manufacturing, Healthcare and Technology

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This is the first installment of a three-part series from Alvarez & Marsal on the impact of artificial intelligence on private equity.

The rapid development of AI has brought forth advanced language models like OpenAI's GPT series, which can understand and generate human-like text based on a given input. ChatGPT, a highly-regarded application of the GPT series, has attracted significant media attention for its impressive capability to generate written content, answer questions, and code in a human-like manner. The recently introduced GPT-4 surpasses its predecessors in terms of scale and performance, making it a considerably more advanced technology. With its natural language processing (NLP) capabilities, GPT-4 has the potential to transform private equity portfolio companies within various industries, especially those that deal with large data sets and complex business processes.

KEY POINTS:

GPT-4's advanced AI capabilities offer significant potential for private equity portfolio companies in the manufacturing, healthcare and technology sectors to optimize operations and drive performance.

Manufacturing can employ GPT-4 to streamline supply chain management, enhance product development and improve customer engagement, ultimately increasing efficiency and competitiveness.

Healthcare companies can leverage GPT-4 for clinical decision support, personalized medicine and patient engagement, leading to better patient outcomes and more efficient care delivery.

Technology sector companies can harness GPT-4's capabilities to drive innovation in software development and strengthen cybersecurity, resulting in more reliable and secure digital products and services.

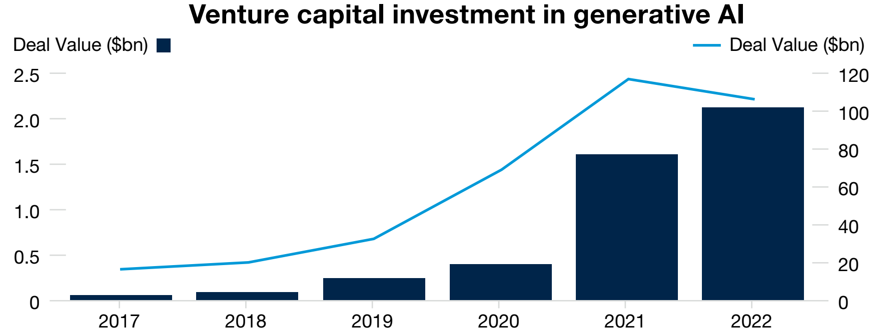
Private equity firms that actively integrate GPT-4 into their portfolio companies' operations can position themselves as leaders in the AI-driven future, creating significant value for investors and stakeholders.

As private equity firms continue to invest in these sectors, they can leverage GPT-4 and similar technologies to optimize their portfolio companies' operations, products and services. Private equity firms can empower their portfolio companies to embrace GPT-4's potential and make better-informed decisions, automate routine tasks and uncover hidden insights from vast amounts of data.

Investment in Generative AI Has Grown Rapidly

Generative AI, the kind that is capable of creating text, images and other media content in response to prompts — like online chatbots and ChatGPT — has attracted impressive sums of venture capital since 2020.

Venture capital investment in generative AI



* As of Dec 6 2022
Source: PitchBook
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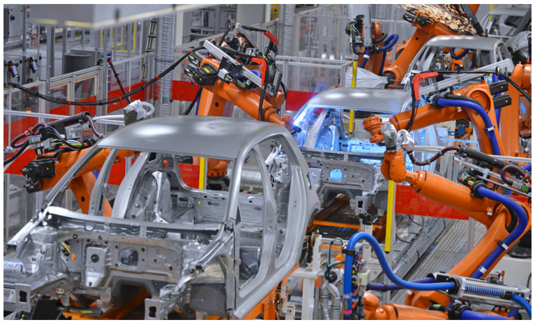
Manufacturing Applications with GPT-4

Private equity portfolio companies in the manufacturing sector can leverage GPT-4 to enhance their operations, product development and customer engagement. Key applications of GPT-4 in manufacturing include:

Streamlining Supply Chain Management:

GPT-4 can analyze vast amounts of textual data from various sources, such as supplier communications, contracts and shipping documents, to provide actionable insights for optimizing supply chain management. Using GPT-4 to automate tasks like tracking inventory levels, identifying potential bottlenecks and predicting delivery delays can increase efficiency and reduce costs for manufacturing companies.



Enhancing Product Development:

By analyzing customer feedback, market trends and competitor data, GPT-4 is able to inform the product development process. Manufacturers can better create innovative products that cater to evolving consumer preferences by leveraging unmet customer needs and emerging trends identified by GPT-4.

Improving Customer Engagement:

By generating personalized, human-like responses to customer inquiries, GPT-4 can significantly enhance customer engagement. Manufacturers can use GPT-4-powered chatbots to handle customer support, provide real-time updates on order status and offer product recommendations based on individual customer preferences. Intercom, a business messaging software company, recently announced an AI customer service bot that, using both ChatGPT and GPT-4, is able to provide customers with accurate answers, hold brief conversations and ask questions[1].

1. Intercom Launches First GPT-4 Customer Service Bot (businessplus.ie)

Healthcare Applications with GPT-4

GPT-4's NLP capabilities have the potential to revolutionize various aspects of the healthcare industry, from clinical decision support to patient engagement. Private equity portfolio companies in healthcare can benefit from the following applications of GPT-4:

Clinical Decision Support:

GPT-4's analysis of vast amounts of medical literature and research data allows it to provide evidence-based recommendations for clinical decision-making. Faced with a shortage of doctors, healthcare companies are looking to automation and AI to improve patient care. Bionic Health is taking the first steps, raising funding for an AI health clinic for diagnostics and monitoring[2]. By aggregating and synthesizing relevant information, GPT-4 can support healthcare providers in diagnosing and treating complex medical conditions more effectively.

Personalized Medicine:

By analyzing patient data such as medical history, genetic information and lifestyle factors, GPT-4 can help healthcare providers develop personalized treatment plans tailored to each patient's unique needs. This targeted approach can improve patient outcomes, minimize side effects and reduce healthcare costs.

Patient Engagement and Education:

GPT-4 can generate personalized, easy-to-understand content for patients, helping them better understand their medical conditions and treatment options. By facilitating effective communication between healthcare providers and patients, GPT-4 is able to improve patient engagement and promote more informed decision-making.

2. Bionic Health raises $3M for its AI health clinic using GPT-4 and other ML models to design better preventative care | TechCrunch

Technology Application with GPT-4

Private equity portfolio companies in the technology sector have the opportunity to harness GPT-4's capabilities to drive innovation, streamline processes and enhance customer experiences. Key applications of GPT-4 in technology include:

Software Development:

GPT-4 can assist in various stages of the software development lifecycle, from requirements gathering to code generation. The model has already been used to create simple apps and browser extensions, promising to improve efficiency and decrease costs[3]. Developers will also be able to understand and prioritize user needs more effectively with GPT-4's analysis of user requirements and its generated human-like natural language descriptions. Additionally, GPT-4 can generate code snippets and documentation and even perform automated code reviews, increasing productivity and reducing the likelihood of errors.

Cybersecurity:

GPT-4 has the ability to evaluate vast amounts of data from security logs, threat intelligence feeds and other sources to identify potential vulnerabilities and threats in real-time. By generating insights on emerging attack vectors and recommending mitigation strategies, GPT-4 can allow technology companies bolster their cybersecurity posture and reduce the risk of data breaches. Using NLP, GPT-4 can also be used to detect and prevent fraud. Stripe, a financial services company, has already seen success in monitoring its forums through AI-run syntax analysis[4].

User Experience (UX) Design:

By analyzing user feedback, behavior patterns and other data, GPT-4 is able to inform user experience (UX) design decisions. By identifying user pain points and preferences, GPT-4 can drive more intuitive, user-friendly products that cater to the evolving needs of technology customers.

Customer Support:

GPT-4-powered chatbots can provide instant, personalized assistance to users, improving customer support efficiency and satisfaction. By automating routine inquiries and troubleshooting tasks, GPT-4 can allow technology companies to streamline their customer support operations, freeing up resources for more complex issues.

3. Startups Are Already Using GPT-4 to Spend Less on Human Coders (vice.com)
4. How Stripe is using GPT-4 to fight fraud (freethink.com)

Unlocking Value with Generative AI

GPT-4's powerful NLP capabilities have the potential to transform a wide range of applications across the manufacturing, healthcare and technology sectors. Private equity firms can leverage this cutting-edge technology to enhance their portfolio companies' performance and drive value creation.

By embracing GPT-4 in areas such as supply chain management, clinical decision support, software development and customer engagement, private equity portfolio companies can stay ahead of the competition and capitalize on the myriad opportunities presented by AI-driven innovation.

As AI and NLP continue to evolve, their applications across industries will only expand, making it essential for private equity firms to keep a close eye on developments of the GPT series. By staying ahead of the curve and actively integrating GPT-4 into their portfolio companies' operations, private equity firms can position themselves as leaders in the AI-driven future, unlocking significant value for their investors and stakeholders.

About the Series

This series aims to explore the transformative effects of GPT-4, a groundbreaking AI language model, on private equity portfolio companies in a range of key industries and to provide insights into enhanced operational efficiencies through the implementation of AI and GPT-4.

Contact Us

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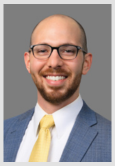

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No Regret Moves: Actions PE Leaders Must Take to Optimize Portfolio Company Value in the Face of High Interest Rates

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Doing Nothing in This Environment Is Exactly What Not

The Private Equity (PE) industry finds itself in a very dark place after experiencing unprecedented highs in recent years with record deals, volumes and fundraising activities. Interest rates have risen precipitously with no expectation they will retreat from their current levels for some time to come, leaving liquidity strained, debt difficult to acquire and firms facing lower returns.

For the PE sector, this is a new environment. Following a boom of deal and fundraising activities in 2021 and early 2022 and the cheap money that enabled it, the rate hikes in 2022 had an almost devastating impact on deal activities, exits and exit valuations:

- Fundraising is at a significant low. The second quarter of 2023 was the worst for raising capital since 2018, reaching a mere $106 billion.[1]
- Unrealized value is at an all-time low with exit activity virtually at a standstill.[2]
- Limited partners are now cash-flow poor.

For many general partners, such uncertainty may lead them to adopt a “wait and see” approach, but that has never been a good strategic plan and is one of the worst things they can do in the current environment. While PE firms should not stop fundraising efforts, now is the time to turn their gaze inward, toward operations and liquidity management, rather than outward toward dealmaking.

Liquidity and margin management are the tools needed for the day — skills most management teams don’t often wield effectively. Their comfort zone is scaling deals for growth with an exit window in mind.

Smart PE firms will take the opportunity in the face of industry headwinds to manage and optimize cash burn now.

Take Action — With No Regrets

Without the traditional formula for acquiring, growing and selling portfolio companies to realize returns, PE firms need to direct their attention to operations and data-driven forecasting. Traditional arbitrage and consolidation approaches won’t work now. A new plan is needed.

Cash management is one answer, but it can’t be the only solution in this environment. Organizations can fix about 20 percent of their cash problems through management, but when most cash in the company is consumed in operations (as much as 60 percent) it won’t be enough. This means the focus must be on cost containment, such as reducing cost of goods sold (CoGs) to improve margins and selling, general and administration (SG&A) costs.

1. https://www.wsj.com/articles/private-equity-fundraising-falls-to-lowest-level-in-five-years-b4998705
2. Bain & Company Stuck in Place Private Equity Midyear Report 2023

Finance and better cash flow planning can't fix the problem alone. Until the weather breaks in the industry, It's an operational challenge first and foremost.

Time is not on the side of PE organizations. Making no decision is worse than a bad decision at this point.

With the potential to remain in this interest rate environment for a longer period of time and the subsequent malaise, PE firms must reset the baseline for their portfolio companies. For some, it's too late. For many more, taking action now can not only preserve investments but also offer an advantage in the marketplace.

The more proactive PE firms have a view into their liquidity and cost problems. This makes more options available to them, potentially allowing them to move ahead of competitors in the marketplace when the economics change.

Moves to Make Now

Here are four actions to take to ease the pain now.

1 *Focus on Liquidity*

In such an unfavourable interest rate environment, pivoting to cash preservation is paramount. The first step will be accurate forecasting. Developing a rolling 13-week cash flow forecast is essential but venturing to predict cash needs as far out as possible, preferably up to four years out, is even better. Why that long? Interest rates are a two- to four-year problem at minimum, so firms need to forecast for the long term to weather the storm. A longer term cash forecast that leverages an indirect model may help to plan out the liquidity impacts and capital needs down the line.

The second step is ensuring the data serving the forecast is accurate, as the output will only be as good as the input. That requires the Chief Financial Officer to work closely with operations to ensure data quality and predictability, find opportunities for data improvement and challenge historical and data-driven assumptions.

In essence, cash flow should become an organization-wide concern. It means going beyond Accounts Payable and Receivables to unearth opportunities in the middle of the business — reducing cost to serve customers, optimizing billing times, reimagining inventory management and procurement and manging CapEx.

2 Cost Management

Not all costs drive value. The key to managing costs is transparency. As with the effort to drive liquidity, quality data will help leaders make decisions on cost management. Do firms have the data and tools to determine total, direct, indirect, fixed and variable costs? Does the data indicate which costs will drive value?

With data in hand, it's time to go back to square-one and begin planning with a new sheet of paper. Know what each category costs. Areas to look at are CoGs, overhead and, in particular, fixed costs that can be turned into variable costs.

An often-overlooked cost reduction method is to renegotiate vendor and customer terms to better sustain a healthy level of cash flow, which was particularly useful during and after COVID when supplies were hard to come by and customers were asking for a break. Changing the game with vendors and customers alike will prevent companies from getting squeezed leading to negative working capital.

In a recent client example, a $500 million revenue portfolio company was able to generate more than $50 million of cash flow by renegotiating terms with their vendors and making sure that customers were adhering to pre-Covid terms, which had gone significantly off-track during and right after COVID.

3 Shrink to Grow (It's About the Margin)

There's good revenue and bad revenue in every company. Which customers provide the best returns? Which actually cost more to maintain? Which cost areas are not yielding expected outcomes? What are the true "costs to serve" for a particular customer, product, channel or business unit?

Create value by increasing the former over the latter. A customer may look profitable on the outside, but when everything's added up, the total cost to serve can end up being negative. Take the time to determine which customers, products, channels and other revenue dimensions you want to support.

Recently, a $1 billion revenue client uncovered more than $80 million in margin opportunities stemming from a combination of pure pricing actions, consolidating a long tail of customers by moving a large portion of them to a distributor and streamlining costs to serve in areas like customer service, logistics and sales commissions.

4 *Change the Culture*

The organization's culture toward cash is important and likely will need to change. Is it biased toward taking smart actions or taking a wait-and-see approach? PE-owned companies must be pro-cash under these economic circumstances.

A cash culture starts at the top, beginning with the board and being driven through the entire organization. The degree that an organization is focused on cash from top-to-bottom will determine a company's drive to profitability. KPIs, compensation plans, communication of goals and announcing the achievement of metrics all serve to support a cash culture. Companies that seek to continuously take out costs and focus on good revenue will survive the current environment and build value for a future return on investment. Those that don't risk succumbing to the pressure.

Treading Water Leads Nowhere

This is the time to act. Indecision will not help and potentially jeopardize the survival of a portfolio company. While cash is king, true and comprehensive performance improvement is required to move the needle.

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